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IMAGES IN CARDIOLOGY

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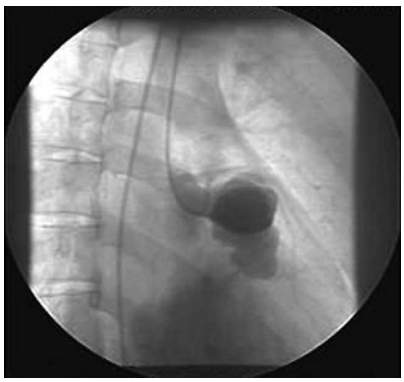
Aneurysm arising from the left sinus of Valsalva and rupturing into the left ventricle: a rare entity



A 23 year old man presented complaining of gradually progressive breathlessness on exertion of six years' duration. There was no history of angina, syncope, oliguria, swollen feet, cyanosis, recurrent respiratory tract infections, rheumatic fever, or prolonged fever. On examination there were signs of mild aortic regurgitation but no features of Marfan's syndrome. Transoesophageal echocardiography was suggestive of an aneurysm arising from the left sinus of Valsalva (LSOV) and rupturing into the left ventricle. At cardiac catheterisation pressures in all the cardiac chambers were normal and oximetry did not reveal step-up in any cardiac chamber. The sinus of Valsalva aneurysm (SOVA) was entered with a pigtail catheter and dye injected here was seen exiting during diastole via a rupture at the tip of the aneurysm, which had a sock-like shape. The flow was not seen in systole as left ventricular systole obliterated the site of communication (panel and video; to view video footage visit the *Heart* website—http://www.heartjnl.com/supplemental).

SOVA are usually congenital in origin and are also seen rarely in patients with Marfan's syndrome or following infective endocarditis. Congenital SOVA most commonly arise from the right or non-coronary sinus (95%) while those from the LSOV are rare (< 5%). A SOVA aneurysm arising from the LSOV and rupturing into the left ventricle is the rarest of all SOVA and in such cases a congenital aetiology is unlikely. No other aetiology was obvious in this case.

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To view video footage visit the *Heart* website—http://www.heartjnl.com/supplemental